IN THE UNITED STATES
PATENT AND TRADEMARK OFFICE

Patent Application

Inventors: Martin Kappes et al.

Serial No.: 10/721721

Conf. No.: 5762

Filing Date: 11-25-2003

Art Unit: 2442

Examiner: Biagini, Christopher D

Docket No.: 633-034US

Title: Method and apparatus for content based authentication for network access

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

PRE-APPEAL BRIEF REQUEST FOR REVIEW

The applicant requests review of the final rejection in the above-identified application. The following amendments intended to overcome the 35 U.S.C. 112 rejections of the claims are entered with the request.

Respectfully,
Martin Kappes et al.

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Dear Sir:

PRE-APPEAL BRIEF REMARKS

Claims 1-13 were presented for examination and were rejected. The applicants respectfully submit that the rejection is overcome.

35 U.S.C. 112 Rejection of Claims 1, 6-8, and 9

Claims 1 and 9 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to provide proper antecedent basis for "providing a result of said evaluation." In particular, the Office pointed that claims 1 and 9 recited two evaluation steps.

The applicants submit that **(1)** Claim 1 has been amended to recite only one evaluation task, **(2)** and that claim 9, as previously presented, recited only one evaluation task. Therefore the applicants respectfully submit that the rejection of claims 1, 6-8, and 9 is overcome.

35 U.S.C. 112 Rejection of Claims 2-5

Claims 1 and 9 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to provide proper antecedent basis for "said determining step."

Because claim 1 has been amended to recite a determining task, and because claims 2-5 depend on claim 1, the applicants respectfully submit that the rejection of claims 2-5 is overcome.

35 U.S.C. 102 Rejection of Claims 1, 7, 9, and 13

Claims 1, 7, 9, and 13 were rejected under 35 U.S.C. 102 (e) as being anticipated by A. Aura, U.S. Publication 2003/0166397 (hereinafter "Aura"). The applicants respectfully submit that the rejection is overcome.

Claim 1 recites:

> **1.** A method for authenticating a device connecting to a first network, comprising:
>
> determining a history of one or more previously terminated connections of said device to at least one other network;
>
> **evaluating an integrity** of data content of said device based on said history; and
>
> providing a result of said evaluation.
>
> **(emphasis added)**

Nowhere does Aura teach or suggest, alone or in combination, what claim 1 recites — namely, evaluating the integrity of data content.

The applicants agree with the office that the invention Aura is similar to the present invention in that both inventions serve to provide secure network access. However, Aura does not teach checking the integrity of data.

Instead Aura teaches several authentication protocols for telecommunication devices in a network. The protocols depend on a key that is shared among all base stations in the network for signature verification.

> Credential = $E_{Knet}(S_{Knet}(K_{cred},$ trust parameters$))$
>
> Wherein E_{Knet} represents an encryption function based on a shared key K_{net}; **S** represents a signature function (a type of authentication code) based on K_{net}; and the signed encrypted message contains the secret credential key K_{cred} and trust parameters. **The shared key K_{net} is shared by multiple (or all) base stations in the mobile access network**...
>
> After receiving the signed and encrypted credential of the first embodiment, the mobile node merely passes the credential on in a response to another base station through which the mobile node wishes to access the network. The new base station uses the shared key K_{net} to decrypt the message and verify the signature.
>
> **Paragraphs [0046], [0047], and [0049] of Aura**

The encryption-decryption scheme for verification of signatures taught by Aura is patentably distinct from the evaluation of data integrity recited in claim 1. The identity authentication protocols described in Aura rely on cryptographic functions to ensure that valid credential keys are being passed. More importantly, the protocols of Aura need shared encryption key K_{net} in order to function. In contrast, <u>data integrity checks</u>, as it is commonly known in the art<u>, do not need the sharing of encryption keys among a plurality of devices in order to function.</u> For this reason, the applicants respectfully submit that Aura does not teach or suggest the evaluation of data integrity recited in claim 1.

In particular, in rejecting claim 1, the Office wrote:

> Comprising integrity of data content of said device based on said history (comprising determining if a credential is valid based on the time it was granted: see [0080] and [0084]).
> **Office Action dated 12/16/2008 at page 4**

Paragraphs [0080] and [0084] of Aura recite:

> [0080] Base station 2 may also take into account other information available to it when making its decision to grant credential authenticated access to a mobile node. Exemplary information may include without limitation revocation lists and a current fraud rate value. For example, a base station 2 could choose to ignore all credentials that are more than 10 seconds old, based on an issue time value included in the credentials, regardless of their other contents.
>
> [0084] A credential is also usually stamped with the time of its issue or the time of its full authentication. **Such a time stamp can be compared** to a credential expiration threshold maintained by the network. If the credential time stamp is too old, the base station may reject it.
>
> **(emphasis added)**
> **Paragraphs [0080] and [0084] of Aura**

The Office, apparently, asserts that a time stamp comparison is equivalent to a data integrity check. The applicants respectfully disagree. A time stamp is an indication of time associated with a particular data unit. A time stamp can indicate, for example, when the data unit was generated, <u>but it is not indicative by itself of the integrity of the informational content of a data unit.</u>

Therefore, the applicants respectfully submit that the rejection of claim 1 is overcome.

Because claim 7 depends on claim 1, the applicants respectfully submit that the rejection of claim 7 is overcome.

For the same reasons as for claim 1 the applicants respectfully submit that the rejection of claim 9 is traversed.

Because claim 13 depends on claim 9, the applicants respectfully submit that the rejection of claim 13 is traversed.

35 U.S.C. 103 Rejection of Claims 2, 3, 6, and 12

Claims 2, 3, 6, and 12 were rejected under 35 U.S.C. 103 (a) as being unpatentable over A. Aura, U.S. Publication 2003/0166397 (hereinafter "Aura") in view of B. Jemes, U.S. Publication 2001/0042213 (hereinafter "Jemes").

Because claims 2, 3, and 6 depend on claim 1, and because Jemes fails to cure the deficiencies of Aura, the applicants submit that the rejection of them is overcome.

Because claim 12 depends on claim 9, and because Jemes fails to cure the deficiencies of Aura, the applicants submit that the rejection of claim 12 is traversed.

35 U.S.C. 103 Rejection of Claims 4 and 10

Claims 4 and 10 were rejected under 35 U.S.C. 103 (a) as being unpatentable over A. Aura, U.S. Publication 2003/0166397 (hereinafter "Aura") in view of T. Noguchi, U.S. Publication 2003/0005333 (hereinafter "Noguchi").

Because claim 4 depends on claim 1, and because Noguchi fails to cure the deficiencies of Aura, the applicants respectfully submit that the rejection of claim 4 is overcome.

Because claim 10 depends on claim 9, and because Noguchi fails to cure the deficiencies of Aura, the applicants respectfully submit that the rejection of claim 10 is traversed.

35 U.S.C. 103 Rejection of Claims 5 and 11

Claims 5 and 11 were rejected under 35 U.S.C. 103 (a) as being unpatentable over A. Aura, U.S. Publication 2003/0166397 (hereinafter "Aura") in view of P. Manchin, U.S. Publication 2004/0049567 (hereinafter "Manchin").

Because claim 5 depends on claim 1, and because Manchin fails to cure the deficiencies of Aura, the applicants respectfully submit that the rejection claim 5 is overcome.

Because claim 11 depends on claim 9, and because Manchin fails to cure the deficiencies of Aura, the applicants respectfully submit that the rejection claim 11 is traversed.

35 U.S.C. 103 Rejection of Claim 8

Claim 8 was rejected under 35 U.S.C. 103 (a) as being unpatentable over A. Aura, U.S. Publication 2003/0166397 (hereinafter "Aura") in view of K. Hoene, U.S. Publication 2002/0199116 (hereinafter "Hoene").

Because claim 8 depends on claim 1, and because Hoene fails to cure the deficiencies of Aura, the applicants respectfully submit that the rejection claim 8 is overcome.

Respectfully,
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